REMARKS

New claims 18-23 have been added, each depending from claims 1, 4, or 10. No new matter has been added.

The Rejections under 35 U.S.C. § 112

The phrases "the inverter applies the voltage at a frequency that is synchronized . . ." and "the inverter applies the voltage at a frequency that is not synchronized . . ." are supported by, for example, ¶¶[0049]-[0051] and [0058]. Accordingly, these rejections have now been overcome.

The Rejections under 35 U.S.C. § 103(a)

Claims 1-8 and 10-17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over various combinations of U.S. Patent Application Publication No. 2002/0057247 to *Lee et al.* ("*Lee*"), U.S. Patent No. 6,753,855 to *Yu* ("*Yu*"), U.S. Patent Application Publication No. 2004/0008176 to *Nuimura* ("*Nuimura*"), and U.S. Patent Application Publication No. 2002/0130830 to *Park* ("*Park*"). Applicant respectfully traverses, noting that none of these references, singly or in combination, discloses every element of any of these claims as amended. More specifically, none discloses an inverter that can operate in both synchronous and asynchronous mode. Additionally, none discloses the operation in synchronous or asynchronous mode depending upon whether a timing signal is received. Finally, *Nuimura* teaches away from Applicants' claims.

As noted in the latest Office Action, neither *Lee* nor *Yu* teaches an inverter that can operate in both synchronous and asynchronous mode (Office Action, p. 5). Neither of the remaining references cures this deficiency in *Lee* and *Yu*. *Nuimura* discloses the generation of a pulse width modulation (PWM) signal Sc that governs driving signal Sd, and that is <u>always asynchronous</u>: "In other words, the PWM signal Sc is <u>always most asynchronous with respect to the vertical synchronizing signal Sv</u> to a maximum extent" (¶[0035]) (emphasis added). The PWM signal Sc is never synchronous – rather, it is always asynchronous. *Park* does not appear to cure this deficiency in *Nuimura*, as *Park* does not appear to disclose any inverter that can be operated in both synchronous and asynchronous modes.

Furthermore, as no reference discloses an inverter that can operate in both synchronous and asynchronous modes, no reference can also disclose that this inverter

operates in synchronous or asynchronous modes depending on whether a timing signal is received. In particular, *Nuimura* discloses the determination of PWM signal Sc by ambient light data, not by any timing signal (¶¶[0028]-[0029]).

Claims 1 and 4 are thus patentable over each of the above references, singly or in combination, for at least the reasons that they recite "an inverter which is operated in a synchronous mode upon receiving the timing signal from the inverter control unit, and in an asynchronous mode when the timing signal is not received." Similarly, claim 8 is patentable for at least the reasons that it recites "driving a lamp with a voltage applied to the lamp by an inverter, according to an operation mode of the inverter, the operation mode including a synchronous mode and an asynchronous mode" and "a frequency of the voltage applied to the lamp is synchronized with a frequency of the timing signal during the synchronous mode in which the timing signal is output from the inverter control unit." The remaining pending claims each depend from one of claims 1, 4, or 8, and are thus each also patentable for at least these same reasons.

Finally, *Nuimura* teaches away from Applicants' claims. *Nuimura* teaches a PWM signal Sc that is as asynchronous with vertical synchronizing signal Sv as possible, in order to minimize the appearance of undesirable lateral stripes on the display screen even when the PWM signal Sc shifts slightly due to, e.g., temperature variations (¶[0035]). That is, *Nuimura* actually teaches against having a synchronous mode, as synchronous modes lead to the display of undesirable lateral stripes. *Nuimura* thus teaches directly away from Applicants' recitation of a synchronous mode, and does not form the basis for any valid obviousness rejection. Accordingly, the pending claims are patentable for this additional reason as well.

CONCLUSION

For the foregoing reasons, Applicant believes that the application is now in condition for allowance. If the Examiner has any questions regarding the application, the Examiner is invited to call the undersigned at (408) 331-1671.

Certificate of Transmission

Certificate of Transmission: I hereby certify that this correspondence is being transmitted to the United States Patent and Trademark Office (USPTO) via the USPTO's electronic filing system on August 5, 2010.

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